

# (12) UK Patent Application (19) GB (11) 2 252 302 (13) A

(43) Date of A publication 05.08.1992

(21) Application No 9200285.6

(22) Date of filing 08.01.1992

(30) Priority data

(31) 9100729

(32) 14.01.1991

(33) GB

(51) INT CL<sup>5</sup>

B65D 55/02 // B65D 55/16, F41B 11/02

(52) UK CL (Edition K)

B8T THSD T14A

F3C CSA

U1S S1198 S1203 S1391

(56) Documents cited

GB 0550677 A US 4043448 A

(58) Field of search

UK CL (Edition K) B8T THSD TWC, F3C CSA

INT CL<sup>5</sup> B65D

(71) Applicant

Philip John Iline

5 David House, 43 Station Road, Sidcup, Kent,  
United Kingdom

(72) Inventor

Philip John Iline

(74) Agent and/or Address for Service

Graham Jones & Company

77 Beaconsfield Road, Blackheath, London,  
SE3 7LG, United Kingdom

(54) A container

(57) A container comprises a body portion (4), a lid (6) which is hinged to the body portion (4), and a closure catch (10) for fastening the lid (6) in a closed position on the body portion (4); the closure catch (10) comprising a first catch member (12) which is provided on the body portion (4), and a second catch member (14) which is provided on the lid; the two catch members (12, 14) being so shaped as to be a snug fit together; and the body portion (4) being made of a resilient material such that, when the body portion (4) is held in a person's hand (16), the body portion (4) adjacent the first catch member (12) is able to be resiliently inwardly deformed with the person's thumb (18) in order to move the two catch members (12, 14) apart and unfasten the lid (6) from its closed position on the body portion (4).

The container may contain paint bullets and may be an integral part of a gun for firing paint bullets.

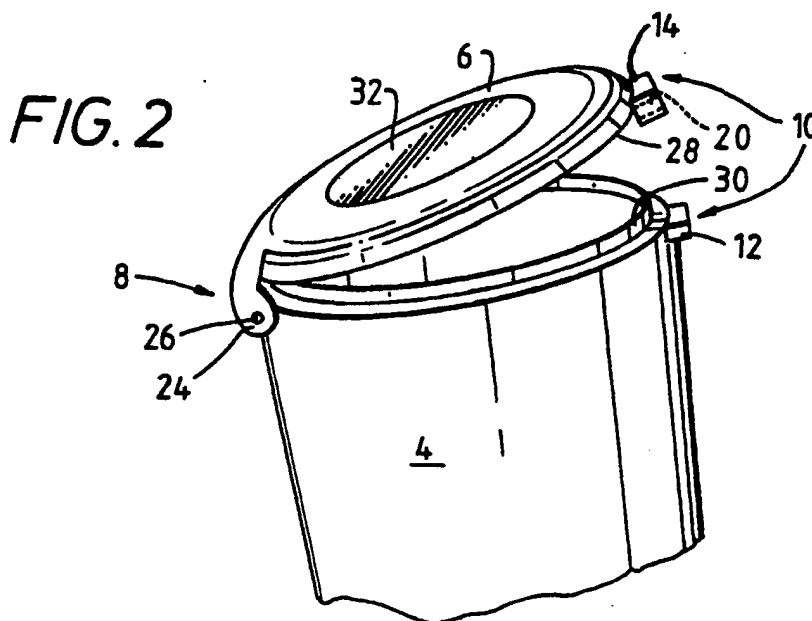


FIG. 1

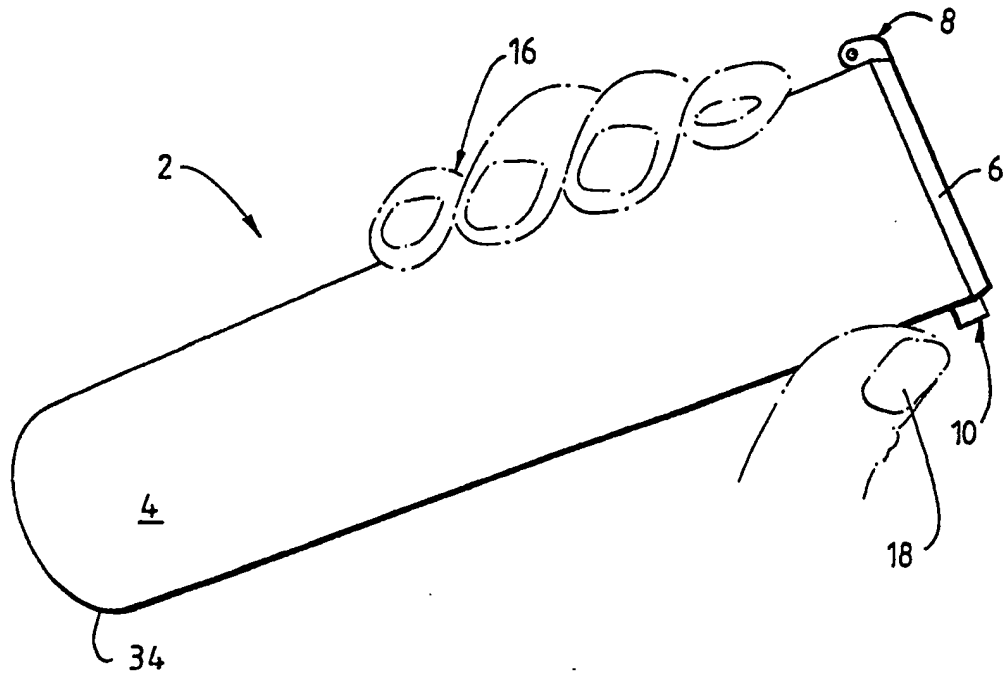


FIG. 2

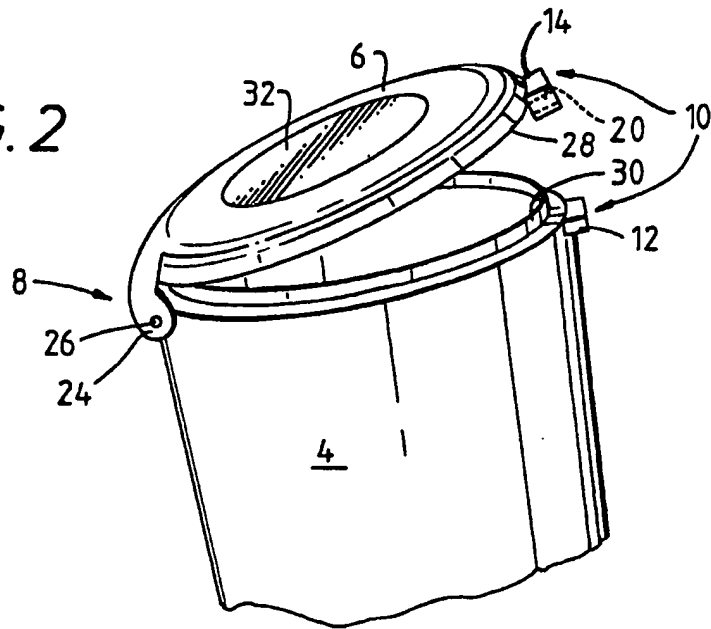


FIG. 3

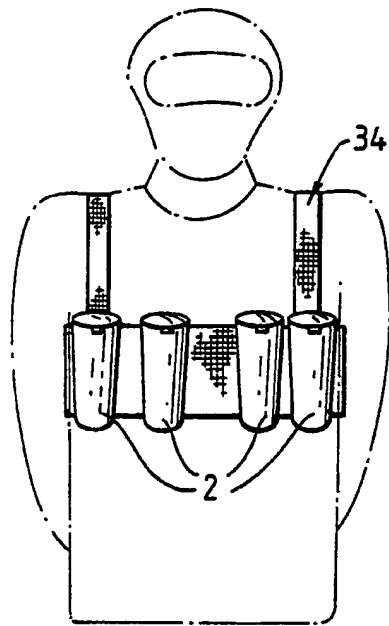
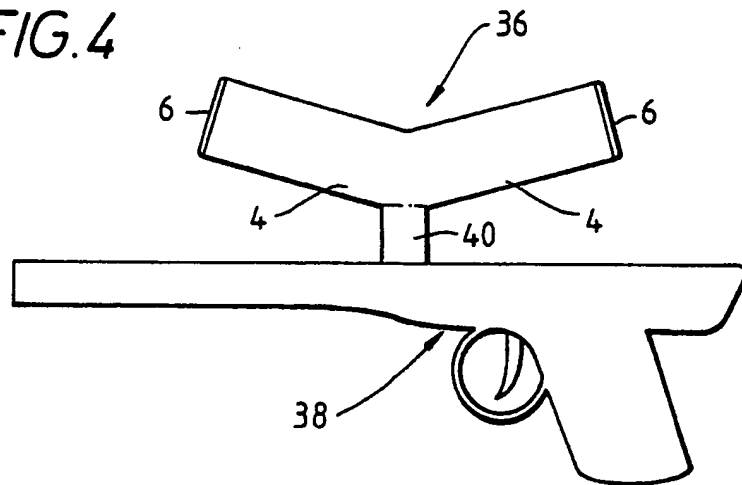


FIG. 4



A CONTAINER

This invention relates to a container.

Containers are available in a wide variety of sizes and shapes for containing a wide variety of products. The containers invariably have a body portion and a lid.

5           It is an aim of the present invention to provide a container which has a body portion and a lid, the lid being securely fastenable in its closed position, and the lid also being openable and closeable in a simple manner.

10           Accordingly, in one non-limiting embodiment of the present invention there is provided a container comprising a body portion, a lid which is hinged to the body portion, and a closure catch for fastening the lid in a closed position on the body portion; the closure catch comprising a first catch member which is provided on the body portion, and a second catch member which is provided on the lid; the  
15           two catch members being so shaped as to be a snug fit together; and the body portion being made of a resilient material such that, when the body portion is held in a person's hand, the body portion adjacent the first catch  
20           member is able to be resiliently inwardly deformed with the person's thumb in order to move the two catch members apart and unfasten the lid from its closed position on the body portion.

Preferably, the container is one in which the first catch member is formed as an integral part of the body portion, and in which the second catch member is formed as an integral part of the lid.

5           The container may be one in which the first catch member is a stud member which projects from the body portion, and in which the second catch member is an apertured member having an aperture for fitting over the stud member. The reverse arrangement may be employed  
10           in which the first catch member has the apertured member, and in which the second catch member has the stud member. Preferably the stud member is a rectangular stud member, the aperture then being a rectangular aperture. Other shapes for the stud member and the aperture may be employed.

15           The lid may be larger than the upper part of the body portion on which the lid fits by an amount sufficient to accommodate the resilient inward deformation of the body portion to unfasten the lid. Where the body portion and the lid are both of circular cross section, then the lid  
20           may be 0.01 inches (.0254 cm ) larger on diameter than the upper part of the body portion on which the lid fits.

          The resilient material of the body portion is preferably a plastics material. A presently preferred plastics material is high density polythene. Such a  
25           material enables the container to be knocked or dropped

during use without breaking. Other plastics materials may be employed.

5       The body portion may taper towards a bottom part having rounded edges. Other shapes for the body portion may be employed so that, for example, the body portion may be parallel sided if desired.

10       Advantageously, the hinge is such that it is stressed in the closed position of the lid whereby, when the two catch members are moved apart, the stressing in the hinge causes the lid to fly open.

15       The hinge may comprise a fixed hinge member formed as an integral part of the body portion, a pair of hinge arms which are formed as an integral part of the lid and which are spaced apart to fit one on either side of the fixed hinge member, and a pivot pin for pivotally securing the fixed hinge member and the hinge arms together.

20       The lid may have a flanged portion which fits over a lip part of the body portion, the lip part of the body portion being a part of the body portion which is of a reduced thickness.

      Usually, the lid will be made of the same resilient material as the body portion. The lid may be made from a different material to that of the body portion if desired.

25       Advantageously, the lid has a window portion for enabling the inside of the body portion to be seen. The

contents of the body portion can then be viewed. The window portion is preferably an insert moulded window portion. This avoids the need to retain the window portion in position with adhesives. Adhesives may  
5 however be employed if desired.

Preferably, the window portion is made of crystal polystyrene.

The container may be of any appropriate size and shape. The container may be in the form of a paint  
10 bullet container for containing paint bullets. Usually, the paint bullets will be in the form of balls known as paintballs.

The present invention also extends to the combination of the container when provided with paint  
15 bullets.

When the container contains the paint bullets, then two or more of the containers may be provided in a harness or bandolier. The present invention also extends to the combination of the harness or bandolier provided  
20 with the containers.

The container may alternatively be in the form of a weenie feeder. The weenie feeder will usually have two of the body portions, and a cranked portion by which the body portions fit to a gun for firing paint bullets.  
25 The two body portions will normally be connected end to

end at an angle, with a window preferably being provided at one end of the weenie feeder, with the other end being a blank end.

5       The weenie feeder is provided with paint bullets for feeding a gun which is usually called a paintball gun. The present invention also extends to the weenie feeder when provided with the paint bullets, and also to the weenie feeder when fitted to a paint gun.

10       Embodiments of the invention will now be described solely by way of example and with reference to the accompanying drawings in which:

Figure 1 shows a first container;

Figure 2 is an enlarged view of part of the container shown in Figure 1;

15       Figure 3 shows containers of the type shown in Figure 1 in use; and

Figure 4 shows another container in use.

Referring to Figures 1 and 2, there is shown a container 2 comprising a body portion 4, a lid 6 which is hinged to the body portion 4 by a hinge 8, and a closure catch 10. The closure catch 10 is for fastening the lid 6 in a closed position on the body portion 4.

20

The closure catch 10 comprises a first catch member 12 which is provided on the body portion 4 and a second catch member 14 which is provided on the lid 6. The

25



two catch members 12, 14 are so shaped as to be a snap fit together.

The body portion 4 is made of a resilient plastics material in the form of high density polythene.

5 Thus, when the body portion 4 is held in a person's hand 16, the body portion 4 adjacent the first catch member 12 is able to be resiliently inwardly deformed with the person's thumb 18 in order to move the two catch members 12, 14 apart and unfasten the lid 6 from its closed position on  
10 the body portion 4.

As can be seen from Figures 1 and 2, the first catch member 12 is formed as an integral part of the body portion 4, and the second catch member 14 is formed as an integral part of the lid 6. The first catch member 12 is  
15 a rectangular stud member. The second catch member 14 is an apertured member having a rectangular aperture 20 which receives the first catch member 12.

As can be seen from Figure 2, the body portion 4 and the lid 6 are both of circular cross section. The  
20 lid 6 is 0.01 inches ( 0.0254cm) larger in diameter than the upper part of the body portion 4 on which the lid 6 fits. This enables the upper part of the body portion 4 adjacent the first catch member 12 to be inwardly deformed such that the first and second catch members 12, 14 come apart. The  
25 difference in diametric size can depend on the wall thickness of the body portion 4 and its diameter.

The hinge 8 comprises a fixed hinge member 22 formed as an integral part of the body portion 4, a pair of hinge arms 24 which are spaced apart to fit one on either side of the fixed hinge member 22, and a pivot  
5 pin 26 for pivotally securing the fixed hinge member 22 and the hinge arms 24 together. The hinge 8 is made to be stressed in the closed position of the lid 6 whereby, when the two catch members 12, 14 are moved apart, the stressing in the hinge 8 causes the lid 6 to fly open.

10 The lid 6 has a downwardly extending flange portion 28 which fits over an upwardly extending lip 30 on the top of the body portion 4. The lip 30 is of reduced thickness compared with the remainder of the body portion 4.

15 The lid 6 is made of the same material as the body portion 4. The lid 6 has an insert moulded window portion 32 which is made of crystal polystyrene. The window portion 32 enables paintballs contained in the container 2 to be seen. The container 2 is thus a paintball container.

20 As can be seen from Figure 1, the container 2 tapers slightly towards a rounded base as shown. The container 2 may be approximately 18cm long having a 6cm diameter adjacent the lid 6 and a 4.5cm bottom diameter. Such a paintball container 2 may contain sixty paintballs.

The tapering construction of the body portion 4 together with its rounded bottom part 34 enables the container 2 easily to fit into a harness 34 as shown in Figure 3. As can be seen from Figure 3, the harness 34 contains four  
5 of the containers 2.

Figure 3 shows an alternative container in the form of a weenie feeder 36. The feeder 36 may be regarded as comprising two of the containers 2 joined together at their bases and at an angle as shown. Thus the feeder 36  
10 may be regarded as having two body portions 4 each having a lid 6. One lid 6 may be provided with a window portion 32 while the other lid 6 will usually be blank. The feeder 36 is connected to a paintball gun 38 by means of an elbow portion 40.

15 During use of the container 2 in war games, for example as shown in Figure 3, or as shown in Figure 4, persons firing paint bullets at each other will often be walking, running, or crawling through difficult terrain. It often happens with known containers that the catch on the  
20 container snags on something, for example on brushwood or on clothing, and the lid opens, resulting in the paintballs being lost. These paintballs are relatively expensive and furthermore, they are messy if trodden on. Apart from this, a person or a team could lose a competition due to lost time  
25 and lost vigilance involved in picking up lost paintballs.

With the hinge 8 of the present invention and the catch members 12, 14, there is nothing to snag on clothing, brushwood and the like. Thus the lid 6 remains firmly fastened until such time as it is desired to open the lid 6. Then simple pressure as mentioned above on the body portion 4 adjacent the first catch member 12 causes the lid to fly open so that the container 2 or the feeder 36 can quickly and easily be filled with more paintballs.

It is to be appreciated that the embodiments of the invention described above with reference to the accompanying drawings have been given by way of example only and that modifications may be effected. Thus, for example, the container 2 or the feeder 36 may be of a different shape. Also, the first catch member 12 and the second catch member 14 may be of different complementary shapes.

CLAIMS:

1. A container comprising a body portion, a lid which is hinged to the body portion, and a closure catch for fastening the lid in a closed position on the body portion; the closure catch comprising a first catch member which is provided on the body portion, and a second catch member which is provided on the lid; the two catch members being so shaped as to be a snug fit together; and the body portion being made of a resilient material such that, when the body portion is held in a person's hand, the body portion adjacent the first catch member is able to be resiliently inwardly deformed with the person's thumb in order to move the two catch members apart and unfasten the lid from its closed position on the body portion.
2. A container according to claim 1 in which the first catch member is formed as an integral part of the body portion, and in which the second catch member is formed as an integral part of the lid.
3. A container according to claim 1 or claim 2 in which the first catch member is a stud member which projects from the body portion, and in which the second catch member is an apertured member having an aperture for fitting over the stud member.

4. A container according to claim 3 in which the stud member is a rectangular stud member, and in which the aperture is a rectangular aperture.

5 5. A container according to any one of the preceding claims in which the lid is larger than the upper part of the body portion on which the lid fits by an amount sufficient to accommodate the resilient inward deformation of the body portion to unfasten the lid.

10 6. A container according to claim 5 in which the body portion and the lid are both of circular cross section, and in which the lid is 0.01 inches (.0254cm) larger on diameter than the upper part of the body portion on which the lid fits.

15 7. A container according to any one of the preceding claims in which the resilient material of the body portion is a plastics material.

8. A container according to claim 7 in which the plastics material is high density polythene.

20 9. A container according to any one of the preceding claims in which the body portion tapers towards a bottom part having rounded edges.

10. A container according to any one of the preceding claims in which the hinge is such that it is stressed in the closed position of the lid whereby, when the two catch members are moved apart, the stressing in the hinge causes the lid to fly open.

11. A container according to any one of the preceding claims in which the hinge comprises a fixed hinge member formed as an integral part of the body portion, a pair of hinge arms which are formed as an integral part of the lid and which are spaced apart to fit one on either side of the fixed hinge member, and a pivot pin for pivotally securing the fixed hinge member and the hinge arms together.

12. A container according to any one of the preceding claims in which the lid has a flanged portion which fits over a lip part of the body portion, the lip part of the body portion being a part of the body portion which is of a reduced thickness.

13. A container according to any one of the preceding claims in which the lid is made of the same resilient material as the body portion.

14. A container according to any one of the preceding claims in which the lid has a window portion for enabling the inside of the body portion to be seen.
- 5 15. A container according to claim 14 in which the window portion is an insert moulded window portion.
16. A container according to claim 14 or claim 15 in which the window portion is made of crystal polystyrene.
- 10 17. A container according to any one of the preceding claims and in the form of a paint bullet container for containing paint bullets.
18. A container according to any one of the preceding claims and including paint bullets.
- 15 19. A container according to any one of the preceding claims and which is in the form of a weenie feeder.
20. A container according to claim 19 in which the weenie feeder has two of the body portions and a crank portion by which the body portions fit to a gun for firing paint bullets.



21. A container according to claim 20 in which the two body portions are connected end to end at an angle, with a window being provided at one end of the weenie feeder, with the other end being a blank end.

5 22. A container substantially as herein described with reference to the accompanying drawings.

23. A harness or bandolier when provided with two or more of the containers as claimed in any one of claims 1 to 18.

10 24. A weenie feeder as claimed in any one of claims 19 to 21 and including paint bullets.

25. A paint gun when provided with a weenie feeder as claimed in any one of claims 19 to 21 and 24.

**Patents Act 1977**  
**Examiner's report to the Comptroller under**  
**Section 17 (The Search Report)**

-15-

Application number

9200285.6

**Relevant Technical fields**

(i) UK Cl (Edition <sub>K</sub>) B8T (THSD, TWC): F3C (CSA)

(ii) Int Cl (Edition <sub>5</sub>) B65D

**Databases (see over)**

(i) UK Patent Office

(ii)

Search Examiner

P T SQUIRE

Date of Search

24 MARCH 1992

Documents considered relevant following a search in respect of claims

1 TO 25

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 550677 (PATON CALVERT) whole document	1-3, 5
X	US 4043448 (TANAKA) whole document	1, 2, 7, 13

Category	Identity of document and relevant passages	Relevant to claim(s)

#### Categories of documents

**X:** Document indicating lack of novelty or of inventive step.

**Y:** Document indicating lack of inventive step if combined with one or more other documents of the same category.

**A:** Document indicating technological background and/or state of the art.

**P:** Document published on or after the declared priority date but before the filing date of the present application.

**E:** Patent document published on or after, but with priority date earlier than, the filing date of the present application.

**&:** Member of the same patent family, corresponding document.

**Databases:** The UK Patent Office database comprises classified collections of GB, EP, WQ and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).